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ABSTRACT

Recently, community meetings on the importance of "time to teach" were held at 13 sites across the state of North Carolina, and 2,400 surveys were completed by teachers, parents, and other citizens. This paper presents findings of that study and identifies specific practices that can increase the effective use of school time for teaching and learning. To improve the schoolwide factors that influence time-on-task, school administrators and teachers should establish clear criteria for increasing attendance, arriving in class on time, and minimizing class disruptions and external distractions. Teachers can improve the inclass factors of time for teaching and learning by monitoring instructional time, communicating expected classroom behaviors to students, beginning class within the first minute of the period, preparing all instructional materials and activities beforehand, and utilizing other efficient classroom behaviors. Increasing the amount of time that teachers spend teaching and the time their students are on task requires neither expense nor special training and is almost guaranteed to result in higher student achievement. (LMI)

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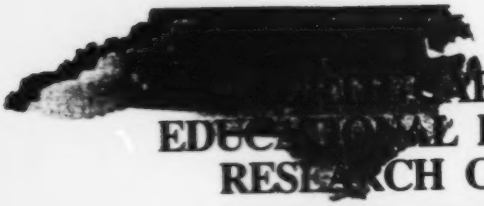

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MAXIMIZING TIME TO TEACH AND TIME TO LEARN

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MAXIMIZING TIME TO TEACH AND TIME TO LEARN

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NOVEMBER, 1992

MAXIMIZING TIME TO TEACH AND TIME TO LEARN

Executive Summary

Recent meetings and surveys conducted across the state of North Carolina on the topic of "time to teach" reveal that although a majority of teachers, parents, and other citizens do not want to extend the school day or the school year, many do support the need to make more efficient use of the school time already available for teaching and learning. Research has shown consistently that student achievement is directly and positively related to the amount of time students spend paying attention and trying to learn.

School-wide factors which influence the amount of time to teach and time to learn include attendance, tardiness, use of the inter-com, classroom visitations, and external distractions. In-class factors include the amount of time that's spent on instructional tasks; rules, classroom procedures, and routines; the time taken to begin class; teacher modeling of time-on-task; the teacher's style of questioning during lessons; student success; classroom monitoring; control of disruptive behavior; and the clarity and conciseness of directions given during lessons. While each individual factor named may play only a minor role, the accumulation of small effects of a number of factors over a school year can add up to a significant amount of school time being wasted.

Teachers vary greatly in the degree to which they use time available for teaching and learning efficiently and effectively. Whether the amount of improvement possible is slight or dramatic, with administrative support, increasing the time they spend teaching and the time their students are on task requires neither expense nor special training, and it is almost guaranteed to result in higher student achievement. Based on the results of this study, the following recommendations are made:

<u>Strategies aimed at improving school-wide factors that influence time-on-task</u>

1. Principals and teachers should set goals and develop specific plans to increase attendance.

2. Principals and teachers need to have explicit rules about arriving in class on time and to have a means of enforcing them.

3. Every school should establish criteria and guidelines that strictly limit the use of the inter-com.

4. Every school should establish criteria and guidelines that minimize classroom interruptions from visitors.

5. Administrators and teachers should identify external distractions in their school and reduce or eliminate them.

<u>Strategies aimed at improving in-class factors that influence time-on-task</u>

1. Teachers should closely monitor the proportion of allocated class time that is used for instruction and should average 90% use of allocated time for instruction.

2. Teachers should prepare a list of expected classroom behaviors and teach the students how to behave based on these rules.

3. Teachers should get their classes started within the first minute of the class period.

4. Teachers should have all instructional materials and activities prepared before class begins and should devote their full attention to the on-going class activities.

5. Teachers should direct relevant questions to all students and make provisions that ensure the likelihood that students will attend to all questions asked.

6. Teachers should ensur hat all students experience high rates of success on school tasks.

7. Teachers should monitor student behavior continually.

8. Teachers should respond quickly, professionally, and consistently to all disruptive behavior in the classroom.

9. Teachers should devote their full attention to supervising students while they are engaged in seatwork.

10. Teachers should present directions clearly and succinctly and should make sure that all students are paying attention while directions are being presented.

MAXIMIZING TIME TO TEACH AND TIME TO LEARN

INTRODUCTION

Recently, community meetings on the importance of "time to teach" were held at 13 sites across the state of North Carolina, and 2,400 surveys on this topic were completed by teachers, parents, and other citizens (North Carolina Department of Public Instruction, 1992). Although a majority of the respondents did not want to extend the school day or the school year, many of them supported the need to make more efficient use of the school time already available for teaching and learning. These findings are quite consistent with those obtained in other states.

Regardless of whether or not more time is added to the school year, it is imperative that principals and teachers manage available school time well. If students are to achieve maximum benefits from schooling, school time must not be viewed as something to be filled up or used up. Rather, school time must be viewed as one of the most valuable resources available and used wisely.

This paper will address the following topics: 1) research on the importance of time for teaching and learning, 2) measures of time in teaching and learning, 3) recommendations for practices which influence the time teachers spend teaching and the time students spend on learning tasks, and 4) conclusions. The major emphasis will be on the identification and description of specific practices that can increase the effective use of school time for teaching and learning.

Research on the Importance of Time and Learning

The most widely used model of school learning, described by John B. Carroll (1963), proposes that the relationship between time and learning is such that the *degree of learning* is a function of the *time spent learning* divided by the *time needed to learn*. In its simplest formulation, Carroll's model is:

$$\text{Degree of Learning} = \frac{\text{Time Spent Learning}}{\text{Time Needed to Learn}}$$

The time spent learning is determined by the *opportunity to learn* (usually controlled by the school and the teacher) and the *learner's perseverance* (ultimately determined by the student). The time needed to learn is determined by the learner's *aptitude* and *ability to follow instruction* and the *quality of instruction*. According to Carroll's formulation, if a student spends 30 minutes learning how to pronounce 40 new vocabulary words and needs 30 minutes to master the task, then complete (100%) learning will occur. If the student had spent 20 minutes learning how to pronounce the words, the learning would have been less than complete.

Carroll's model of school learning has provided the conceptual basis for most of the time and learning research that has been conducted in the last three decades. The results of these studies will not be discussed here since they were reviewed in an earlier Policy Brief (Suarez, Torlone, McGrath, and Clark, 1991). It is important to reiterate, however, two overall conclusions of these research studies. First, a large majority of the studies have reported a positive relationship between the time measures used and student achievement. Second, some measures of time are more strongly and consistently related to student achievement than are others. For example, the amount of time a student spends paying attention and trying to learn (time-on-task) is more highly related to achievement than is the time formally allocated for learning (e.g., 50 minute class periods). Various time measures and their relationship with student achievement are described and discussed in the next section of this paper.

Measures of Learning Time

Several measures of learning time have been used in studies which examine the relationship between time and learning. Although the major time measures have been defined somewhat differently in these studies, the following descriptions capture their main ideas:

1. School Attendance/Exposure Time. This measure refers to the total number of hours that students attend school during the school year (e.g., six hours per day times 171 days equals 1,026 hours). (Wiley & Harnischfeger, 1974)

School exposure time is increased by lengthening the school day or the school year. Neither of these options has much public support at this time, and increasing scheduled school time is costly. Furthermore, it is not at all clear from available research what the impact of lengthening either the school day or the school year would be on student achievement.

2. Allocated Time. This measure refers to the amount of time assigned for a particular subject or topic (e.g., 50 minutes per day for reading instruction). (Eggen & Kauchak, 1992)

Changing allocated time without increasing scheduled school time is simply a matter of re-allocating the fixed amount of scheduled time available by taking time away from one subject or topic and giving it to another subject or topic. Allocation decisions reflect a school or school system's philosophy and priorities. Although research evidence does support the claim that the more time allocated for a specific subject, the higher student achievement will be, dramatically increasing the allocated time for one subject at the expense of other subjects is not likely to be easily done in a school curriculum that has advocates for each and every subject and topic taught.

Measures 1 and 2 are under the control of the policy makers and have been shown to have a weaker effect on student achievement than those measures more closely related to classroom practice that follow:

3. Instructional Time. This measure refers to the amount of time that is actually used for instruction in a particular subject or topic (e.g., 40 minutes for reading instruction). (Eggen & Kauchak, 1992)

Instructional time is a sub-category of allocated time, since instructional time refers to that portion of allocated time that is actually used for instruction in the designated subject. Of the first three time measures, instructional time (the one that is a direct indicator of the amount of time actually used by teachers to get students to learn designated content) is consistently the most highly related to student achievement (Berliner, 1981; Wyne & Stuck, 1982).

4. Time-On-Task/Engaged Time. This measure refers to the time students are paying attention and trying to learn (e.g., 30 minutes during reading instruction). (Eggen & Kauchak, 1992)

5. Academic Learning Time. This measure refers to the time students are on task and are experiencing moderate to high rates of success (e.g., at least 80% successful on at least 50% of the tasks assigned to them. (Eggen & Kauchak, 1992)

These two measures of student time, time-on-task and academic learning time, are subcategories of instructional time and they are consistently the measures that provide the best predictors of student achievement. Teachers have a great deal of control over instructional time in their classrooms and can do a number of things (e.g., provide clearer explanations, more appropriate tasks, better feedback) that can increase students' time-on-task and academic learning time. Research suggests that there is wide variability among teachers as to how classroom time is used (Borg, 1980; Rosenshine, 1980), and these variations in the use of classroom time have interactive effects with each other that produce cumulative payoffs. For example, increases in instructional time will almost certainly produce concommitant increases in student time-on-task.

It is important to note that measures of time that are more closely related to classroom practice are better predictors of student achievement than those measures that reflect broad school policy. This is probably because there is more variability from teacher to teacher in how classroom time is used than there is in school policies regulating school exposure time and time allocated for instruction in different subjects.

The most economical and feasible way to increase students' school achievement is to maximize the time teachers spend teaching the content (instructional time) and the

time students spend paying attention and trying to learn (time-on-task). The next section of this paper discusses several specific practices which, according to current research evidence, influence the availability of time to teach and the time students spend trying to learn.

Factors Related to Instructional Time and Time-On-Task

In this section, key factors related to the effective use of time in school will be identified, followed by specific recommendations for practices that are likely to help increase time use in each area.

<u>School-Wide Factors That Influence Time to Teach and Time to Learn</u>

1. Attendance. Although attendance rates in North Carolina schools (approximately 94%) are much better than those of many inner-city schools in the country, the typical student in North Carolina misses approximately two weeks of school each year. The impact of these absences goes beyond the effect they have on the students who miss class. Student absences also have an adverse effect on all other students in the class, because teachers must then take time away from their scheduled instruction to address the needs of students who have been absent. Frequently, the teacher will have to address the needs of one student who has missed one day, another student who has missed two days, and still another student who has missed four or five days. The time spent helping these students to catch up detracts from the time the teacher has available to conduct the on-going lesson. Such distractions will inevitably result in lower rates of time-on-task for the majority of the students in the class.

> **RECOMMENDATION**: *Principals and teachers should set goals and develop specific plans to increase attendance.*

All teachers and parents should know exactly what the attendance goals are and what strategies will be used in an attempt to achieve them. Absences should not be treated as routine and inevitable. The message communicated to students and parents should convey the importance of being in school every scheduled day and indicate explicitly the adverse effects of absenteeism on achievement (Wiley & Harnischfeger, 1974). The importance of attending school should be communicated to parents when teachers or administrators contact them after each absence.

It is important to note that systematic attempts to reduce absences have produced positive results (deJung & Duckworth, 1985). Therefore, there is good reason to believe that improved attendance will result from systematic efforts to reduce absences. Finally, it is important to emphasize that student attendance is a necessary condition if increased student time-on-task and academic learning time are to occur.

2. Tardiness. When students come to class late, their tardiness usually affects the entire class. Some teachers wait at the door until the last student has arrived. In some cases, this is school policy. Some teachers follow a practice of re-explaining assignments, directions, or material to tardy students. These delayed starts or repeated starts have a direct effect on instructional time and thus affect time-on-task and academic learning time for all students in the class. Furthermore, these practices communicate to late students that they do not have to arrive on time and that the teacher will re-explain anything that they have missed.

It is important to note that within a particular school, there is often considerable variance among teachers (even those teaching the same students) in the tardiness of their students. Students seem to make every reasonable effort to be on time for some teachers' classes, while they are quite casual about getting to other teachers' classes on time. In some teachers' classes, students realize that they are expected to be in their seats ready to work when the bell rings, while in other teachers' classes, "getting to class on time" means stepping inside the classroom just as the bell stops ringing.

> **RECOMMENDATION**: *Principals and teachers need to have explicit rules about arriving in class on time and to have a means of enforcing them.*

It is suggested that teachers have explicit written statements regarding their expectations. These expectations should be stated as goals and should include a description of how the teacher plans to deal with students who are tardy. For example, teachers should expect that every student will be in his/her seat with appropriate materials out and ready to start by the time the bell stops ringing (if there is a bell). For students who come to class late, the policy might be that they go directly to their seats and not interrupt the teacher or other students. When other students are productively engaged in relevant activities, the teacher can come to the late students' seats and explain information presented prior to their arrival and answer questions they may have.

The practice of getting to class on time is part of the culture of the school. Teachers and administrators should be careful not to treat tardiness as inevitable. It is important that tardiness be treated as a serious matter starting with the <u>first</u> day of school and that getting to class on time is the expectation of <u>all</u> the teachers in the school. Students who are tardy should be reminded of the importance of being there on time and the adverse effects on them and the other students should be explained. Too often, students are required to get "excuse slips" that are provided routinely before entering class late, a practice that frequently results only in a further delay in getting to class. In many instances, this practice probably reinforces being late by reducing the time spent in the classroom.

3. Use of the inter-com. The school inter-com can cause major disruptions in the on-going teaching-learning process. Thirty minutes of uninterrupted instruction is more productive than a total of 30 minutes of instruction during which there have been several interruptions. Even high achieving students are adversely affected by interruptions, but low achieving students who are most easily distracted and who frequently take longer to get back on task after an interruption suffer even more.

> **RECOMMENDATION**: *Every school should establish criteria and guidelines that strictly limit the use of the inter-com.*

Although school inter-coms cannot be entirely eliminated, the frequency of their use can be greatly curtailed. Teachers should have some say in prescribing the guidelines for how and when the school inter-com should be used. Reducing the use of the inter-com can help to maximize the time teachers have to teach and the time students are on task and learning.

4. Classroom visitations. Many teachers claim that visitors to their classrooms do not distract their students. Systematic research evidence suggests otherwise (Wyne & Stuck, 1978). When visitors enter the classroom, some students almost always will be distracted and look up. Here too, lower achieving students are most likely to be distracted and have the greatest difficulty getting back on task.

Many administrators and teachers alike see classroom visitations as a major problem. There are no easy solutions to the problem. Various individuals and groups have the right and/or need to visit classrooms. The question is, how can these rights and needs be met without having an adverse effect on the learning of students in the classroom.

> **RECOMMENDATION**: *Every school should establish criteria and guidelines that minimize classroom interruptions from visitors.*

These criteria and guidelines should apply to a wide range of situations, such as parents coming to the school to pick up their child or to observe the teacher and students. They also should cover classroom visits that provide services to students with special needs and to take such students to centers and resource rooms where they will receive special services. They should apply to college students and others who want to observe in classrooms. Visits to observe teachers for the purpose of evaluating and helping them should also be considered when developing criteria and guidelines. The intent here is not to eliminate all classroom visits. That would be impossible. But it is possible in many schools to reduce the number of classroom visits and to make classroom visits less disruptive.

5. External distractions. Schools are not meeting their responsibility of maximizing the opportunity for students to learn when they allow external distractions that could be controlled to interrupt learning. School officials who allow the band or sports teams to practice in areas where students in classes will be distracted or who allow the maintenance department to mow the lawn next to classrooms during instructional time are not giving academic learning top priority.

> **RECOMMENDATION**: *Administrators and teachers should identify external distractions in their school and reduce or eliminate them.*

Although some external distractions, such as the sounds of traffic or the sight of the first snow flakes of the year, cannot be controlled by school officials, others can be reduced or eliminated. Controlling external distractions highlights the school's commitment to student learning, since there is no doubt that students are on task more and learn more when distractions are minimized.

In-Class Factors That Influence Time to Teach and Time to Learn

1. Time spent on instructional tasks. Research indicates that approximately 20% of the time allocated for instruction is not used for instruction (Rosenshine, 1980). Although it may not be reasonable to expect that 100% of the allocated time will be used for instruction, it is reasonable to expect that more than 80% of allocated time will be used for instruction. Here again, studies show considerable variation among teachers. In some classrooms, more than 95% of the allocated time is used for instructional purposes, while in other classrooms, less than 50% of the allocated time is used for instruction (Harris & Serwer, 1966; Leinhardt, 1977; Cooley & Leinhardt, 1978; Fischer, Filby, & Marliave, 1977; Gage, Crawford, Stallings, Corno, Stayrook, & Metman, 1978; Anderson, Evertson, & Brophy,1979).

> **RECOMMENDATION**: *Teachers should closely monitor the proportion of allocated class time that is used for instruction and should average 90% use of allocated time for instruction.*

It is important that announcements made at the beginning of the class period be made efficiently and that non-instructional activities be screened carefully. Teachers must also minimize the effects of unplanned activities, including undue dwelling on a topic or being sidetracked into discussions about sports, television, etc., that may slip into the lesson.

2. Rules, procedures, and routines. Not only is it important that teachers establish rules, procedures, and routines in their classrooms, but it is important that they do this

very early in the school year (Anderson & Evertson, 1978; Emmer, 1981; Emmer, Sanford, Evertson, Clements, & Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982). The culture of the classroom is a powerful factor that influences the amount of class time that is effectively used for teaching and learning. Research indicates that teachers, especially beginning teachers, spend too little time communicating their expectations to students. Although concentrating on instructional content is the key to student achievement, research indicates that teachers who spend time at the beginning of the school year explaining their expectations, demonstrating the desired classroom behaviors, allowing students to practice the desired classroom behaviors, and providing students with feedback regarding their classroom behaviors have more opportunity to concentrate on content later (Emmer, Sanford, Evertson, Clements, & Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982).

Rules indicating what the teacher wants students to do, procedures indicating how things are to be done in the classroom, and routines for carrying out the procedures automatically should be established for a wide range of instructional and non-instructional activities, such as distributing and collecting class materials and exams, participating in class discussions, soliciting help from other students in the class, sharpening pencils, using the restroom during the class period, and getting ready to start work at the beginning of the class period. Too often the rules and procedures are not clear to students, especially young students, and they learn what is expected of them by trial and error, which is an inefficient way to learn rules, procedures, and routines.

It is important to make a distinction between stating and/or listing rules and establishing rules. When classroom rules have been established, student behavior is governed by those rules. Stating or listing the rules is not a sufficient condition for establishing them. In some classrooms, teachers spend excessive amounts of time reminding students over and over of the rules they are violating, even when the rules are posted in the classroom. In these cases, the rules have not been established and are not influencing the behavior of students.

> **RECOMMENDATION**: *Teachers should prepare a list of expected classroom behaviors and teach the students how to behave based on these rules.*

These expected classroom behaviors should describe how the teacher wants the classroom to function. Research indicates that students at all grade levels need to be informed of how the class will be conducted and that young students, especially, need to practice classroom behaviors that are consistent with the rules if they are to behave appropriately (Stallings & Kaskowitz, 1974). After rules, procedures, and routines have been established, they must be maintained, since behaviors that follow class rules and procedures frequently are not self-sustaining (Emmer, Sanford, Evertson, Clements, &

Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982). It is much easier to maintain appropriate classroom behaviors than it is to re-establish appropriate classroom behaviors.

3. Starting class promptly. The time between the designated start time for a class and the time the students become engaged in a relevant instructional activity averages about five minutes. Thus, on average, something close to 10% of the time allocated for instruction is lost at the beginning of the class period. This delay in getting class started is due to such factors as the teacher not being prepared (e.g., looking for or organizing materials that will be used during the lesson), waiting for late students, getting students to settle down, and talking with individual students who have come to the teacher's desk before class gets started. There is wide variability among teachers in how quickly they get their classes started on instructional tasks. A study in one North Carolina school system indicated that several of the teachers consistently had their classes underway within the first minute of the class period, while others regularly took eight to 12 minutes to begin work on an instructional task (Wyne & Stuck, 1978).

> **RECOMMENDATION**: *Teachers should get their classes started within the first minute of the class period.*

To accomplish this goal, teachers must be well prepared and well organized before the beginning of class (Evertson, Anderson, & Brophy, 1978a; Anderson, Evertson, & Brophy, 197; Emmer, Evertson, & Anderson, 1980; Emmer, Sanford, Evertson, Clements, & Martin, 1981). In a number of time-on-task mastery learning classrooms operated in North Carolina schools, none of the teachers had difficulty meeting the goal of getting their class started in the first minute of class (Wyne & Stuck, 1978).

4. Teachers as models of time-on-task. Not surprisingly, students are on task a higher percentage of the time when their teachers are prepared, well organized, and on task a high percentage of the time (Emmer, Sanford, Evertson, Clements, & Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982). Modeling is a powerful influence on how people behave. Thus, it helps if everyone in the entire school is task oriented. Teachers, administrators, and service personnel should be efficient, well prepared, and prompt.

RECOMMENDATION: *Teachers should have all instructional materials and activities prepared before class begins and should devote their full attention to the on-going class activities.*

Research indicates that students are on task more and learn more when teachers are on their feet during the entire class period except to get down to the eye level of individual students to whom they are providing assistance (Stallings & Kaskowitz, 1974). During an instructional period, effective teachers don't do "other things." Rather, they devote their full attention to the ongoing teaching-learning process in that class, continually monitoring the students and providing assistance and feedback to students. When teachers use class time to grade papers, check homework, prepare lessons, write letters, and reconcile their bank statements, students tend to be on task a lower percentage of the time.

5. Style of questioning during a lesson. Questions should be directed by the teacher to all students, not just volunteers (Kerman, 1979). In a typical classroom, fewer than half of the students are involved in the on-going teaching-learning process, partly because many students are never called on to participate (McGreal, 1985). Students who are not actually involved in the lesson are likely to lose interest, and there is no way for the teacher to know whether or not these students understand what is being taught (Brophy & Evertson, 1974; Anderson, Evertson, & Brophy, 1979).

One way to increase student attention is for teachers to ask a question before calling on a particular student to answer it (Eggen & Kauchak, 1992). If students think they might be called on to answer, they are more likely to pay attention to all the questions asked instead of only to those questions asked of them. Furthermore, after a question is asked, the teacher should wait three or four seconds before calling on a student to allow the students to think, and after calling on a particular student, it is important to give the student four or five seconds to answer. Most teachers wait only one second for a student to begin answering a question (Rowe, 1986). Current research also suggests that if a student gives a wrong answer or says he/she doesn't know the answer, the teacher should do some prompting and provide some guidance to help the student produce a reinforceable answer (O'Flahavan, Hartman, and Pearson, 1988).

RECOMMENDATION: *Teachers should direct relevant questions to all students and make provisions that ensure the likelihood that students will attend to all questions asked.*

Over a period of time, every student in the class should be called on approximately the same number of times. Questions should be appropriate for the student to whom they are put, and all students should have an equal chance of being

successful. Equalizing the number of questions asked of each student in the class will increase the number of students who attend to the instructional tasks.

6. Student success. Few, if any, of the factors discussed in this section influence a student's on-task classroom behavior and perseverance as much as this one does. Students do not remain motivated to do those things at which they repeatedly fail, and many students consistently experience more failure than success in school. Many students experience less success on school tasks than what research indicates should be the minimum ratio of success to failure to ensure that students will persevere. Students who experience high rates of failure come to expect that they will fail and thus do not believe that paying attention and trying to succeed in class will have any pay-off for them (Fisher, Berliner, Filby, Marliave, Cahen, & Dishaw, 1980; Emmer, Sanford, Evertson, Clements, & Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982).

> **RECOMMENDATION**: *Teachers should ensure that <u>all</u> students experience high rates of success on school tasks.*

It is easy for teachers to ensure that bright, highly motivated students experience high rates of success. Most classes have a few students who are always prepared and eager to participate, and these students generally get along well with the teacher, experience frequent success, and receive many accolades. However, most classrooms also have students who are seldom prepared, who choose not to participate, who generally experience failure, and who receive little or no positive reinforcement for their school work. Providing opportunities for these students can turn "unmotivated" students into "motivated" ones and can dramatically affect the overall rate of time-on-task and achievement in the classroom.

7. Monitoring in-class behavior. As the saying goes, "an ounce of prevention is worth a pound of cure." One important means of preventing minor classroom behavior problems from becoming major ones is to monitor student behavior continually (Emmer, 1981; Emmer, Sanford, Evertson, Clements, & Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982). Teachers who do this most effectively have what Jacob Kounin (1970) calls "withitness." The students in these teachers' classes think that their teachers know what the students are doing at all times, perceive that the teacher is in charge, and that they cannot get away with anything.

> **RECOMMENDATION**: *Teachers should monitor student behavior continually.*

The frequency with which teachers need to check to see what students are doing will depend on the behavioral histories of the students in their class. Research evidence suggests that teachers have fewer behavior problems when they spend a

disproportionate amount of their time close to those students who are most often involved in disruptive behavior (Stallings & Kaskowitz, 1974). This is an effective teacher strategy for the same reason that drivers who are being followed by a police car usually avoid speeding or driving recklessly.

8. Stopping disruptive behavior. Even teachers who have "withitness" and routinely monitor student behavior will have some disruptive student behavior in their classrooms. Many teachers have been told that ignoring inappropriate behavior causes it to stop. This is not good advice. Classroom research shows that most inappropriate student behaviors that are ignored get worse (Sanford & Evertson, 1981). Even though teachers cannot always respond to disruptive behavior immediately--sometimes teachers may not want to interrupt giving directions, or may choose to speak to the student privately after class--the general practice should be that teachers respond to disruptive behavior promptly and consistently (Emmer, Evertson, & Anderson, 1980; Emmer, Sanford, Evertson, Clements, & Martin, 1981; Sanford & Evertson, 1981; Emmer, Sanford, Clements, & Martin, 1982).

> **RECOMMENDATION**: *Teachers should respond quickly, professionally, and consistently to all disruptive behavior in the classroom.*

Disruptive student behavior reduces the time the teacher has to teach, and it reduces the time students are on task. The longer the teacher delays responding to disruptive behavior the longer it takes to stop it and the greater the adverse effects on the on-task behavior of the other students in the class (Emmer, 1981).

9. Seatwork supervision. It is easy for teachers to let independent seatwork go unsupervised. Some teachers make time to do other tasks such as grading papers, checking homework, preparing lessons--things that they otherwise would have to do outside of class time--by assigning seatwork. The problem is that student time-on-task goes down significantly when teachers do not supervise independent seatwork (Rosenshine, 1980).

> **RECOMMENDATION**: *Teachers should devote their full attention to supervising students while they are engaged in seatwork.*

Teachers should be moving around the room continually monitoring, assisting, and providing feedback to students who are doing assigned seatwork to maximize student on-task behavior during independent seatwork. This will result in maximum student time on task.

10. Clear and concise directions. When directions given to students are not clear and concise, they tend to be confusing and cause some students to give up. Often directions have to be repeated, and this causes students to believe they don't have to listen carefully the first time because the teacher will repeat the directions. The more time the teacher spends giving directions, the less time he/she has to cover the content (Emmer, Evertson, & Anderson, 1980; Emmer, Sanford, Evertson, Clements, & Martin, 1981; Emmer, Sanford, Clements, & Martin, 1982).

> **RECOMMENDATION**: *Teachers should present directions clearly and succinctly and should make sure that all students are paying attention while directions are being presented.*

When students ask many questions about how to do an assignment or do not follow directions, the teacher knows that either the students were not paying attention when the directions were given or the directions were not clear. To avoid having to repeat directions, teachers should write them out on a handout, the blackboard, or a transparency (Anderson, Evertson, & Emmer, 1980).

CONCLUSIONS

It is true that teachers have too little time to accomplish what they are expected to accomplish. However, in many instances teachers do not make efficient use of the time that is available to accomplish the goals of instruction. There is a tendency to view the separate factors that negatively affect time to teach and student time-on-task as having only minor effects. It is true that each individual factor may play a minor role, but the accumulation of small effects for a large number of factors over 180 school days can add up to several days of school time being wasted. The decisions and actions by teachers and administrators that allow this scheduled time to be wasted say more than words about commitment to student learning. Every school espouses the importance of student learning, but many schools do not maximize the opportunity for teachers to teach and for students to learn. Providing students models for efficiently using time in school will very likely provide them with the long term benefit of life-long better time management skills in addition to increasing their achievement while they are in school.

There is much variability among teachers in how efficiently and effectively they use the time that is available for teaching and learning. Some teachers could improve only slightly in the effective use of the time that is available for them to teach and in the amount of time their students are on task, while others could dramatically increase the time they spend teaching and the time their students are on task. Making more efficient use of available school time doesn't require additional expenditures, and it will almost certainly result in higher student achievement. In fact, increasing teaching time and the time students are on task will likely have greater effects on student achievement than will increasing expenditures.

Finally, implementing the practices recommended in this paper does not require teachers and administrators to learn difficult new skills. These are teaching and management practices that all teachers and administrators can carry out effectively without costly additional training.

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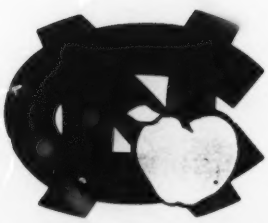
- disseminating research-based information on educational policy issues to North Carolina policymakers, educators and community leaders;
- providing a forum for the discussion of educational policy issues; and,
- training future educational leaders in the conduct and use of policy research.



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